APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/063,333	04/20/1998	MICHAEL D. ELLIS	UV-44	4270

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EXAMINER
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ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The *MAILING DATE* of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *04 February 2003* .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-78* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-78* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 2/11/03 have been fully considered, but they are not

persuasive. On page 4 applicants argues that Hawkins does not teach the claimed features of

"receiving information from a remote source on the amount of memory for the interactive TV

program guide to store the program guide data" and "adjusting the amount of memory used by

the interactive program guide to store the program guide in response to the received

information". Examiner respectfully disagrees. As for the claimed 'receiving information on the

amount of memory used by the IPG', Hawkins explicitly discloses in Fig. 6 & Fig. 8,

transmitting the size of the downloaded IPG, col. 17, lines 35-40.

        Moreover, according to Hawkins the purpose of transmitting information regarding the

size of the IPG is that if the size of the IPG goes beyond the storage capacity of the STB, then

alternative arrangements must be utilized to store the IPG, (col. 19, lines 44-54), which reads on

the additionally claimed feature of 'adjusting the amount of memory used to store the IPG in

response to the received information'. Furthermore, Hawkins discusses several different

algorithms, which uses various amounts of the required storage capacity for the downloaded

IPG; see col. 19, lines 51-67 & col. 20, lines 1-34.

For instance, Hawkins teaches that at least one alternative when the known value of an IPG exceeds the storage capacity of a STB, is to use the well-known LZW compression at the STB, col. 20, lines 21-30.

Examiner notes that applicants discuss throughout the response, various aspects of Hawkins. However, examiner points out that the relevant portions of the independent claim 1 merely require that the size of the IPG is transmitted to the STB and adjusting the amount of memory used by the IPG in response to the received information. This feature is clearly the essence of the teaches of Hawkins at col. 19, lines 44-67 thru col. 20, lines 1-44. and col. 21, lines 1-21. As for the applicants' discussion with respect to the latency issues of Hawkins, examiner points out that Hawkins also teaches that at least a portion of the IPG may be stored at the STB, (col. 12, lines 25-46; col. 18, lines 11-30 & col. 23, lines 27-30).

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-4, 23-36, 39-40, 59 & 65-67 are rejected under 35 U.S.C. 102(e) as being

anticipated by Hawkins, (U.S. Pat # 6,005,561).

Considering claim 1, the amended claimed interactive EPG system in which an

interactive EPG is implemented on user equipment comprising, memory in the user equipment

for storing the EPG is met by Hawkins, (col. 12, lines 25-35 & col. 18, lines 20-22). The

claimed means for receiving information from a remote source on the amount of information for

the interactive EPG to use to be stored reads on the table of media objects transmitted to the user

terminal, see Fig. 5-6 & Fig. 8. The storage requirement for the EPG file is transmitted to the set

top terminal. Hawkins discloses for instance in Fig. 8 that the EPG may require 12.1 MB of

memory, also see col. 19, lines 25-45.

As for the claimed means for adjusting the amount of memory used by the interactive

EPG guide to store the EPG in response to the received information, this feature is inherently

met by the operation of Hawkins. Each particular instance that the EPG is downloaded, may

require a different memory allocation, and therefore the user terminal adjusts to store whatever

amount of EPG is received, at least within the range of overall storage space that is available.

For instance, Hawkins teaches that the LZW compression algorithm may be utilized the

STB, if the known storage requirement of the downloaded EPG exceeds the storage capacity of

the instant STB.

Considering claim 2, Hawkins teaches that the EPG data may include a variety of

parameters, such as start time, duration description, category, rating, part sequence, etc., which

reads on the claimed feature of storing different categories of the EPG data in memory. As for

the additionally claimed feature of reallocating memory among the different categories of EPG

data when the amount of memory used to store the EPG data is adjusted, Hawkins discusses

several algorithms for adjusting the memory used to store EPG data. In particular, it is disclosed

that in order to save memory space, the EPG data may reduced, i.e., a smaller subset of

categories of EPG may be saved instead of the full complement of associated data, see col.19,

lines 51-65 & col. 20, lines 2-15. This technique reads on the reallocation of memory. When

memory is not a problem the whole complement of associated data is stored, however when there

may not be enough memory, then some of the available memory is reallocated from the

associated categories of EPG, to the smaller subset of data.

Considering claims 3 & 29, the claimed elements of an interactive TV program guide

system that correspond with subject matter rejected above in claim 1, are likewise treated. As for

the additional claimed feature of reallocating the memory based on information in a database, the

claimed feature is met by the various algorithms that store the EPG data using different methods,

which necessarily use different storage capacity, and thus different memory locations depending

upon the instant algorithm used.

Considering claims 4, 40 & 66, the claimed TV distribution facility reads on the headend

of Hawkins.

Considering claims 23, 59 & 65, the claimed elements of an interactive TV program

guide system that correspond with subject matter rejected above in claim 1, are likewise treated.

As for the additional claimed feature of receiving information from a remote source defining a

new memory configuration, and reconfiguring the memory to accommodate the EPG data

according the new memory configuration, see col. 19, lines 45-65.

Considering claims 24-28 the claimed feature read on the EPG data discussed in

Hawkins, see col. 19, lines 20-67.

Considering claims 30-35, see Hawkins col. 19.

Considering claim 36, see col. 20, lines 4-10.

Considering claims 39, the claimed elements of an interactive TV program guide system

that correspond with subject matter rejected above in claim 3, are likewise treated. The

additional claimed feature of receiving information on the amount of memory available for the

interactive EPG to use to store the EPG data reads on Fig. 8 of Hawkins that discloses the

amount of memory, col. 19, lines 45-60.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 5-22, 37-38, 41-58, 60-64 & 67-78 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hawkins.

Considering claims 5-20, 41-54, 56, 58, 60-64 & 67-72, Official Notice is taken that numerous

memory allocation algorithms were well known in the art at the time the invention was made. It

would have been obvious for one of ordinary skill in the art at the time the invention was made

to operate Hawkins in a manner wherein EPG category records are reallocated, at least for the

benefit of more efficiently utilizing available memory.

Considering claims 21 & 57, the claimed elements of an interactive TV program guide

system that correspond with subject matter rejected above in claim 1, are likewise treated. As for

the additional claimed feature of wherein the program guide corresponds to a channel line-up,

this feature is necessarily included in EPG technology. As for the additionally claimed means

for determining an amount of memory available for each different categories of new channels,

wherein the adjusting is based upon memory that is determined to be available, Hawkins

discusses several algorithms for reducing the memory required to store the EPG, in the event that

the EPG is larger than the memory capacity of the user terminal, col. 19, lines 46-50. Therefore

this passage suggests that the system in Hawkins includes some manner of determining the

available memory of the user terminal. Since this feature is not explicitly taught by Hawkins,

examiner takes Official Notice that at the time the invention was made, it was well known in the

art to maintain a status of the available memory in memory storage devices.

It would have been obvious for one of ordinary skill in the art at the time the invention

was made, to modify Hawkins with the well-known technique of maintaining a status of the

amount of available memory at least for the desirable purpose of determining whether there is

enough memory available to store an incoming data item.

Considering claims 22 & 55, the claimed elements of an interactive TV program guide

system that correspond with subject matter rejected above in claim 1, are likewise treated. The

additional claimed feature of wherein the program guide corresponds to a channel line-up, this

feature is necessarily included in EPG technology. As for the additional claimed feature of

detecting a channel in the TV channel line-up, Hawkins teaches that a variety of changes may be

made to EPG data file to be stored at a user terminal, see col. 19 & col. 20. Official Notice is

taken that at the time the invention was made, it was known in the art to detect a difference in the

data items to be stored in a terminal. It would have been obvious for one of ordinary skill in the

art at the time the invention was made, to operate Hawkins in a manner wherein the specific

items stored in known, at least for the benefit of displaying an updated channel-guide to the TV

viewer's screen, so that the viewer is accurately informed of the available channels.

Considering claims 37-38, the claimed elements of an interactive TV program guide

system that correspond with subject matter rejected above in claim 3, are likewise treated. As for

the additional claimed feature of receiving information from a remote source on the amount of

memory available to store EPG data, Official Notice is taken that at the time the invention was

made, it was known in the art, to maintain a master record of capabilities of remote devices at a

main facility. It would have been obvious for one of ordinary skill in the art at the time the

invention was made, to operate Hawkins in a manner wherein the user terminals receive

information regarding their memory, at least for the known advantage of reducing the amount of

calculating overhead needed for the user terminals.

Considering the newly added claims 73-78, the instant claimed recite subject matter

discussed above in the rejection of claim 21, 22, 37, 55 & 57, and are likewise treated. The

newly added claims add the new feature of control circuitry in the TV equipment, which reads on

the control circuitry within the user terminal of Hawkins.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any response to this action should be mailed to:

> Commissioner of Patents and Trademarks
> Washington, D.C. 20231

> **or faxed to:**
> (703) 872-9314, (for formal communications intended for entry)
> **Or:**
> > (703) 872-9314 (for informal or draft communications, please label
> > "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Reuben M. Brown whose telephone number is (703) 305-2399.

The examiner can normally be reached on M-F (8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew I. Faile can be reached on (703) 305-4380. The fax phone numbers for the

organization where this application or proceeding is assigned is (703) 872-9314 for regular

communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703). 305-4700.

Reuben M. Brown

ANDREW FAILE
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